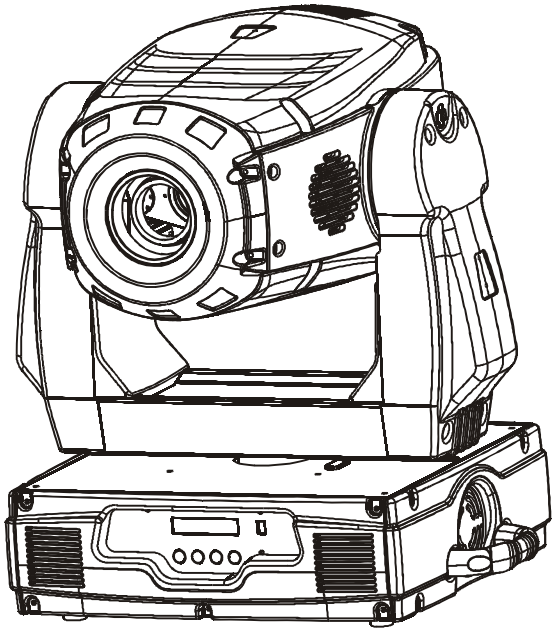
PROFESSIONAL MOVING HEAD USER'S MANUAL

DESIGN SPOT 575E



KEEP THIS MANUAL FOR FUTURE NEEDS CE

For your own safety, please read this user manual carefully before installing the device.

CAUTION

Keep this device away from rain and moisture!

Unplug mains lead before opening the housing.

Every person involved with the installation, operation and maintenance of this device has to:
-be qualified
-follow carefully the instructions of this manual

INTRODUCTION:

Thank you for having chosen this professional moving head.
You will see you have acquired a powerful and versatile device.

Unpack the device. Inside the box you should find: the fixture device, a power cable, an XLR connection cable, a safety cable and this manual. Please check carefully that there is no damage caused by transportation. Should there be any, consult your dealer and don't install this device.

Features

·Lamp: Philips MSR GOLD 575 SA/2 DE lamp
·Control signal: standard DMX-512,24 channels (16 bit) , 22channels (8 bit)
·Stand alone operation with master/slave function, can be sound activated
·Pan/tilt movement: 8 bit and 16 bit resolution
For smooth and precise resolution
Pan: 540°/630° optional, Tilt: 265°movement
High speed of pan/tilt movement, speed of pan/tilt movement is adjustable
Scan position memory, auto reposition after unexpected movement
·CMY color mixture to get indefinite color effects
·Motorized color wheel with 7 colors, 1 UV filter plus open, rainbow-effect with adjustable speed in both directions
·Preset color and gobo-macros
·Two gobo wheels with 6 rotating gobos plus open each, with different speed of gobo shaking and rainbow effect, and gobo indexing
·The rotating prisms wheel can in both directions in different speed, with prism indexing
·Macro effect for rotating gobos, rotating prism combinations
·Animation flame effect
·Separetly stepless frost filter to achieve variable soft beam
·Motorized focus

·Motorized linear zoom from 16° ~ 30°
·Linear dimmer in precise speed from 0~100%
·Stepless iris , 5%~100% linear change iris, pulse iris effect
·Stepless frost, 0%~100% linear change frost
·Preset variable iris, dimmer, shutter, frost pulse effects
·Strobe effect with 1-10 flashes per second or random strobe via shutter
·Friendly colored LCD display
·Battery buffered Control Board for operation time readouts etc
·Local and remote lamp on/off
·Preset program: 8 built in programs can be called up via DMX controller
·Editable program: Edit and save the program to inside EEPROM via the control board or external controller, up to 250 scenes can be saved and then can be run in Stand Alone or sound activated.
·Number of scenes in Program Run can be changed individually

SAFETY INSTRUCTIONS

CAUTION
Be very careful during installation. Since you will be working with a dangerous voltage you can suffer a life-threatening electric shock when touching live wires.

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

IMPORTANT
Damages caused by the disregard of this user manual are not subject to warranty.
The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

Make sure that the available voltage is not higher than stated at the end of this manual.
Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.

CAUTION
Never touch the device during operation!
The housing may heat up

CAUTION
Never look directly into the light source,
as sensitive persons may suffer an epileptic shock.

Please be aware that damages caused by manual modifications to the device are not subject to warranty. Keep away from children and non-professionals.

GENERAL GUIDELINES

This device is a lighting effect for professional use on stages, in discotheques, theatres, etc.
This fixture is only allowed to be operated with the max alternating current which stated in the technical specifications in the last page of this manual, the device was designed for indoor use only. Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects. Do not shake the device. Avoid brute force when installing or operating the device.

While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

Always fix the fixture with an appropriate safety cable if you use the clamp to hang up the fixture. When fixing the device on a raised-from-the- ground support, be sure to use no less than screws and nuts of M10 x 25 mm and insert them in the pre-arranged screw holes in the base of the fixture.

If you use the quick lock cam in hanging up the fixture, please make sure the 4 quick lock fasteners turned in the quick lock holes correctly.

Operate the device only after having familiarized with its functions. Do not permit operation by

persons not qualified for operating the device. Most damages are the result of unprofessional operation.

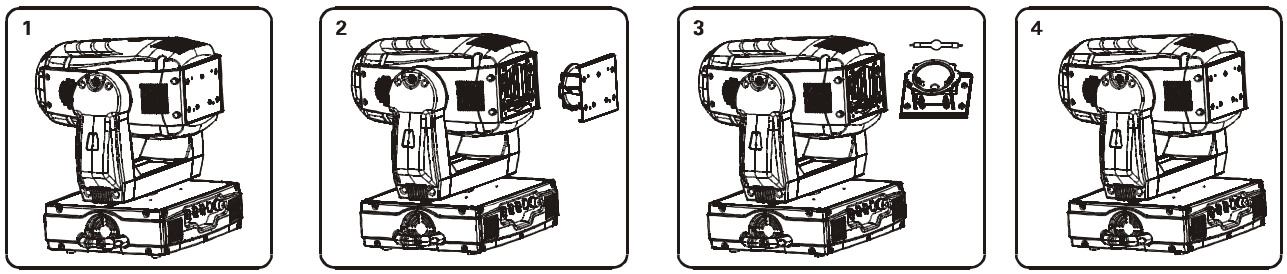
Please use the original packaging if the device is to be transported.
For safety reasons, please be aware that all modifications on the device are forbidden.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, lamp explosion, crash, etc.

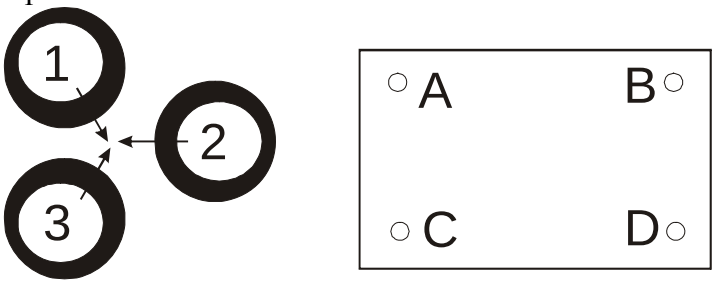
INSTALLATION INSTRUCTIONS

a) Installing or replacing the lamp

Do not install lamps with a higher wattage. They generate higher temperatures than which the device was designed for.
For the installation, you need one MSR GOLD 575 SA/2 DE lamp
Procedure :



1) Unscrew the 4 screws marked A, B, C and D on the back of the housing, holding the plate where the lamp is underneath.
2) Gently pull the socket holder of the lamp housing in the middle.
3) Carefully insert the lamp into the socket. Please remember there is only one way to insert the lamp. Gently slide the lamp and its lamp holder back into place and fasten the 4 screws.
4) On the access plate there are 3 small screws marked 1, 2 and 3. which are used to adjust the lamp holder in the lamp housing. You can adjust the 3 screws to fine-turn the position of the lamp to get the maximum light output as shown below.



Please remember the lamp is not a hot-restrike type, you must wait for approximately 10 minutes after having turned off the lamp before you can turn it back on again.

CAUTION
Do not operate this device with open cover

b) Mounting the device

CAUTION
Please consider the EN 60598-2-17 and the other respective national norms during the installation. The installation must only be carried out by a qualified person.

The installation of the effect has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety cable.

Never stand directly below the device when mounting, removing or servicing the fixture.

The operator has to make sure the safety relating and machine technical installations are approved by an expert before taking the device into operation for the first time.
These installations have to be approved by a skilled person once a year.

CAUTION
Before taking into operation for the first time,
the installation has to be approved by an expert.

Cautions:
The effect should be installed outside areas where persons may reach it, walk by or be seated.

CAUTION
When installing the device, make sure there is no highly inflammable material within a distance of min. 0,5m

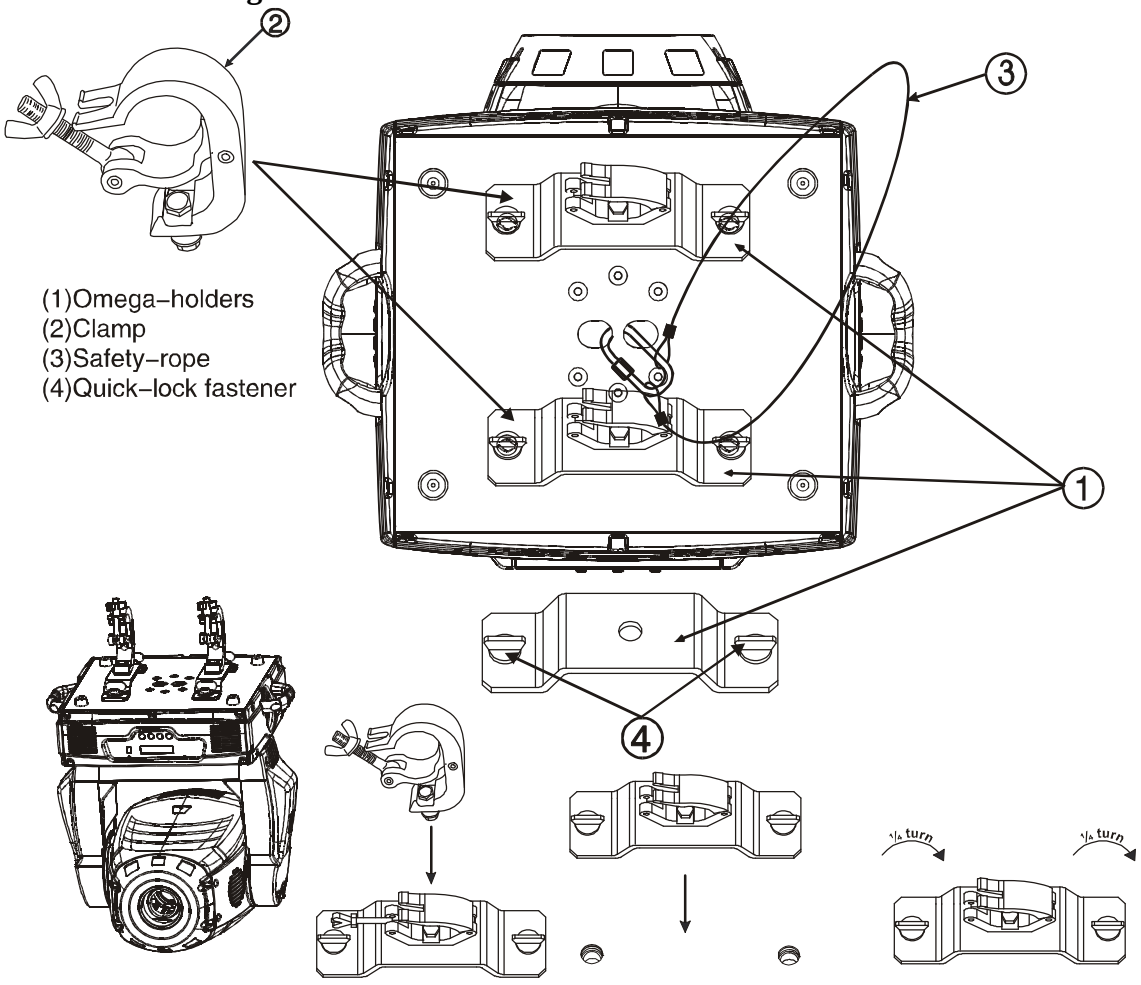
Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself. Improper

installation can result in bodily injury.

CAUTION
The electric connection must only be carried out by a qualified electrician.

Before mounting make sure that the installation area can hold a minimum point load of 10 times the device's weight.
Connect the fixture to the mains with the power plug

installation via the Omega holders

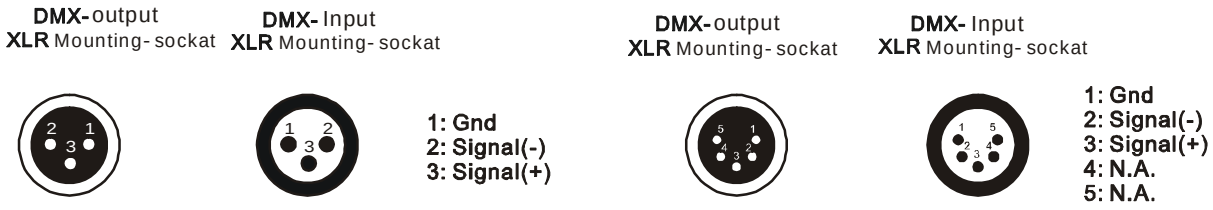


Screw one clamp each via a M12 screw and nut onto the Omega holders.
Insert the quick-lock fasteners of the first Omega holder into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise. Install the second Omega holder.
Pull the safety-rope through the holes on the bottom of the base and over the trussing system or a safe fixation spot. Insert the end in the carabine and tighten the safety screw.

DMX-512 control connection

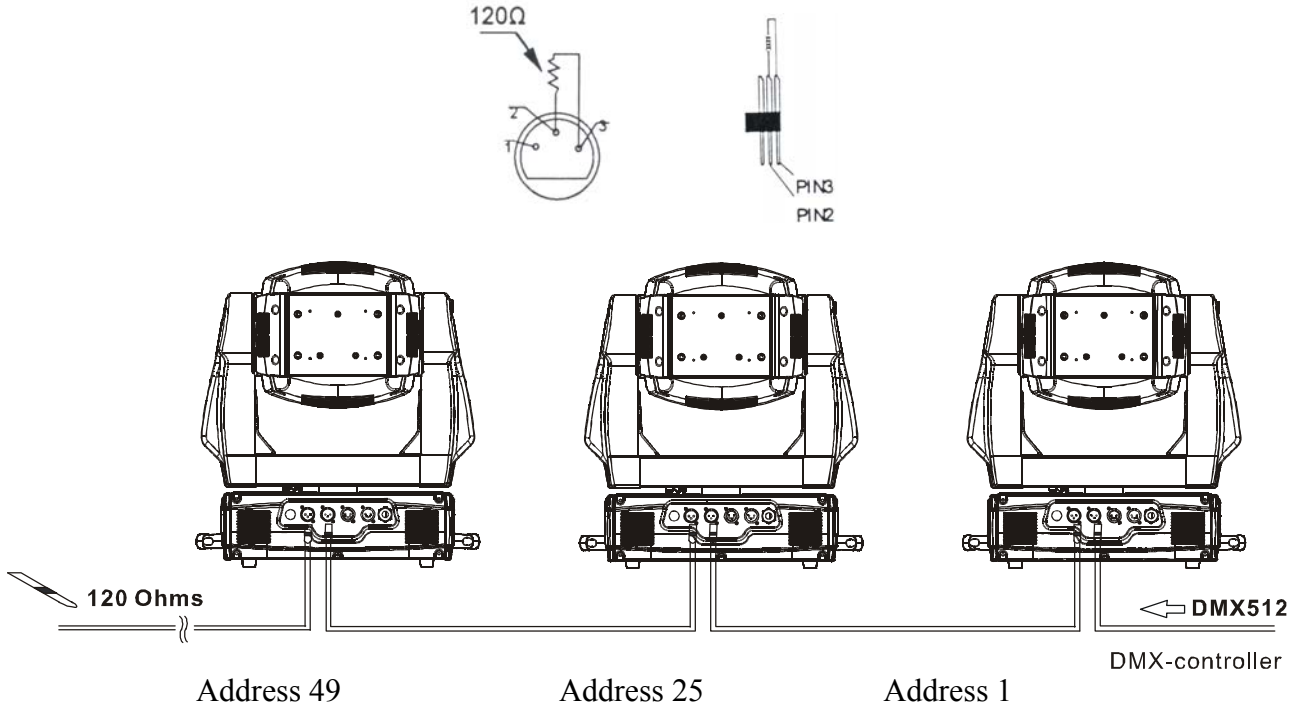
Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side

to the male 3-pin XLR input of the moving head. You can chain multiple
Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.



DMX-512 connection with DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.



Projector DMX start address selection

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to “listen” to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or make different address for each fixture individually.

If you set the same address, all the units will start to "listen" to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.
If you set a different address, each unit will start to "listen" to the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected fixture.

In the case of the spot head, which is a 24 channel fixture, you should set the starting address of the first unit to 1, the second unit to 25 (24 + 1), the third to 49 (25 + 24), and so on.

Control Board

The Control Board offers several features: you can simply set the starting address, switch on and off the lamp, run the pre-programmed program or make a reset.
The main menu is accessed by pressing the **Mode/esc**-button until the display starts flashing. Browse through the menu by pressing the **Up**-button or **Down**-button. Press the Enter-button in order to select the desired menu. You can change the selection by pressing the **Up**-button or **Down**-button. Confirm every selection by pressing the **Enter**-button. You can leave every mode by pressing the **Mode/esc**-button . The functions provided are described in the following sections.

Function Mode	Set Dmx Address	A001~AXXX		DMX address setting
	Value Display	PAN Moving……		DMX value display
	Set To Slave	Slave1,Slave2,Slave3		Slave setting
	Auto Program	Master / Alone		Auto program
	Music Control	Master / Alone		Music control
Information	Time Information	Current Time	XXXX(Hours)	Power on running time
		Total Run Time	XXXX(Hours)	Fixture running time
		Total Lamp Time	XXXX(Hours)	Lamp running time
		Lamp Off Time	XXXX(Minute)	Lamp off time
		Clear Lamp Time	ON/OFF	Clear lamp time
	Temperature Info	Base Temperature	XX □/□	Temperature on the display board of the base
		Head Temperature	XXX□/□	Temperature in the head
	Software Version	Ver1.0		Software version of each IC
Lamp Control	Lamp On or Off	ON/OFF		Lamp on/off
	Automatic La-On	ON/OFF		Lamp on/off when Power on
	Lamp On Via DMX	ON/OFF		Lamp on via DMX
	Lamp Off Via DMX	ON/OFF		Lamp off via DMX
	Lamp Off No DMX	OFF, 0FF~19M		Lamp off if no DMX
	Lamp On at Temp.	45C, 20~79□/□		Lamp restart at temp.
	Lamp Off at Temp.	130C, 80~139□/□		Lamp off at temp.

Personality	Status Settings	Address via DMX No DMX Status Pan Reverse Tilt Reverse Fine Resolution Pan Degree Feedback Movement Speed Mic Sensitivity	ON/OFF Auto/Music/Close/Hold ON/OFF ON/OFF ON/OFF 630/540 ON/OFF Speed 1~ 4 70%, 0~99%	Add. via DMX Auto run if no DMX Pan Reverse movement Tilt Reverse movement Fine resolution switch Pan Degree Select Scan Feedback switch Scan Mode Select Sensitivity of Mic.
	Fans Control	Auto Fans Speed High Fans Speed		Fans Speed Mode Select
	Temperature C/F	Celsius Fahrenheit		Temperature switch between □/□
	Initial Effect	PAN :	PAN =XXX :	Initial effect position
	Reset Default	ON/OFF		Restore factory sett.
Reset Function	Reset All Reset Pan&Tilt Reset Colors Reset Gobos Reset Shutter Reset Others			Reset all motors Reset Pan/Tilt Reset color wheel Reset gobos Reset shutter and/or dimmer Reset other motors
Effect Adjust	Test Channel	PAN ……		Test function
	Manual Control	PAN :	PAN =XXX :	Fine adjustment of the lamp
	Calibrate Values	--Password-- Color wheel :	Password=XXX Color wheel=XXX :	Calbrate and adjust the effects to standard/right position Password “050”
Users Mode Set	User Mode	XXXXXX(Band) User Mode A User Mode B User Mode C		User’s mode to change channel numbers
	Edit User Mode	PAN :	PAN = CH01 :	Preset User modes
Edit Program	Select Programs	Auto Pro Part 1 Auto Pro Part 2 Auto Pro Part 3	Program 1 ~ 10 Program 1 Program 1 ~ 10 Program 2 Program 1 ~ 10 Program 3	Select programs to be run
	Edit Program	Program 1 : Program 10	Program Test Step 01=SCxxx Step 64=SCxxx	(“STEP XX”) Testing program Program in loop Save and exit
	Edit Scenes	Edit Scene 001 ~ Edit Scene 250	Pan,Tilt,…… --Secne Time-- Input By Outside	Pan=xxx…… TIME=xx.xs Save and automatically return manual scenes edit
	Rec. Controller	XX~XX		Automat. scenes rec

Function Mode

DMX address setting

With this function, you can adjust the desired DMX-address via the Control Board.

- Select **"Set DMX address"** via the encoder.
- Press the encoder, adjust the DMX address by turning the encoder.
- Press the encoder to confirm.
- Press the Mode/Esc-button in order return to the main menu.

Display the DMX 512 value of each channel

With this function you can display the DMX 512 value of each channel. The display automatically shows the channel with a value changing.

Slave setting

With this function, you can define the device as slave.

Auto Program

With this function, you can run the internal program. You can select the desired program under **"Select program"**. You can set the number of steps under **"Edit program"**. You can edit the individual scenes under **"Edit scenes"**. With this function, you can run the individual scenes either automatically, i.e. with the adjusted Step-Time.

Music control

With this function, you can run the internal program sound-controlled.

Information

Time information

Current time

With this function, you can display the temporary running time of the device from the last power on. The display shows "XXXX", "XXXX" stands for the number of hours. The counter is reseted after turning the device off.

Machine on time

With this function, you can display the running time of the device. The display shows "XXXX", "XXXX " stands for the number of hours.

Lamp on time

With this function, you can display the running time of the lamp. The display shows "XXXX", "XXXX" stands for the number of hours.

Lamp off time

With this function, you can display the temporary running time of the lamp from the last lamp on. The display Shows "XXXX", "XXXX " stands for the number of hours. The counter is reseted after turning the lamp off.

Clear lamp time

With this function you can clear the running time of the lamp. Please clear the lamp time every time you replace the lamp.

- Select **"Clear lamp time"** by turning the encoder.
- Press the encoder, the display shows "ON" or "OFF".
- Press the encoder to confirm.
- Press the Mode/Esc-button in order to return to the main menu.

Temp. Info.

Base Temp

With this function you can display the temperature in the projector base (near LCD-display) in Celsius.

Inside head Temp

With this function you can display the temperature on the display board of the base (near CMY-filter) in Celsius.

Software version

With this function , you can display the software version of the device.
• Select **“Software version”** by turning the encoder.
• Press the encoder, the display shows **“V-X.X”**, “X.X“ stands for the version number, e.g. “V-1.0”, “V-2.6”.
• Turn the encoder in order to read the version of every individual IC.
• Press the Mode/Esc-button in order to return to the main menu.

LAMP CONTROL

Lamp on/off

With this function you can switch the lamp on or off via the Control Board.
• Select **"Lamp on/off"** by turning the encoder.
• Press the encoder, the display shows **“ON”** or **“OFF”**.
• Turn the encoder to select **“ON”** if you wish to strike the lamp or **“OFF”** in order to switch it off.
• Press the encoder to confirm.
• Press the Mode/Esc-button in order to return to the main menu.

Automatic La-On

With this function you can select if the lamp will be switched on when switching the power on. Select **“ON”** by turning the encoder if you wish to enable this function or **“OFF”** if you don’t.

Lamp on via external controller

With this function you can select if you can switch the lamp on via an external controller. Select **“ON”** by turning the encoder if you wish to enable this function or **“OFF”** if you don’t.

Lamp off via external controller

With this function you can select if you can switch the lamp off via an external controller. Select **“ON”** by turning the encoder if you wish to enable this function or **“OFF”** if you don’t.

Lamp Off if no DMX

With this function you can select to switch off the lamp off automatically if there is no DMX signal). Select **“ON”** by turning the encoder if you wish to enable this function or **“OFF”** if you don’t.

Lamp on at temp.

With this function you can set the inside temperature from which the projector will restrike the lamp after automatic lamp shut off.

Lamp off at temp.

With this function you can set the inside temperature at which the projector will automatically switch the lamp off. Turn the encoder to select the maximum inside temperature between 80° C and 139° C. Inside temperatures below 90° C are not critical. 90° C and more should lead to the lamp being switched off. Please note that the outside temperature should not exceed 45° C.

PERSONALITY

Status setting

Address via DMX

With this function, you can adjust the desired DMX-address via an external controller.
• Select **“Address Via DMX“** by turning the encoder.
• Press the encoder, the display shows “ON” or “OFF”.
• Turn the encoder to select “ON” if you wish to enable this function or “OFF” if you don’t.
• Press the encoder to confirm.
• Press the Mode/Esc-button in order to return to the main menu.
• On the controller, set the DMX-value of channel 1 to "7".
• Set the DMX-value of channel 2 to "7"or "8". When set to "7" you can adjust the starting address between 1 and 255. When set to "8" you can adjust the starting address between 256 and 511.
• Set the DMX-value of channel 3 to the desired starting address. If you want to set the starting address to 57, set channel

1 to "7", channel 2 to "7" and channel 3 to "57". If you want to set the starting address to 420,set channel 1 to "7", channel 2 to "8" and channel 3 to "164" (256+164=420).

• Wait for approx. 20 seconds and the unit will carry out a reset. After that, the new starting address is set.

Run If No DMX

With this function, when the drive is not DMX signal, it runs automatism. You can select model for close, hold, auto, music if no DMX. Default is hold.

Pan Reverse

With this function you can reverse the Pan-movement.

Tilt Reverse

With this function you can reverse the Tilt-movement.

Fine resolution

With this function, you can fine resolution switch of pan movement or tilt movement.

Pan Degree

With this function, you can select pan degree for 630 or 540. Default is 540.

Scan Feedback

With this function, you can scan feedback switch of pan movement or tilt movement.

Scan Mode Select

With this function, you can select scan mode from 1 to 4.

Mic Sensitivity

With this function, the default is 70%, you can select the desired microphone sensitivity from 0 % to 99 %.

Fans Control

With this function, you can set the speed of the running fans. The selections have auto fans speed and high fans speed.

Temperature C/F

With this function, you can set the unit of the temperature. The selections have Celsius and fahrenheit.

Initial effect

With this function, you can adjust with which value the respective channels will start.

Restore factory settings

With this function you can restore the factory settings of the device. All settings will be set back to the default values (shaded). Any edited scenes will be lost.

Reset-functions

With this function you can reset the device via the Control Board. You can select the different Reset functions by turning the encoder.

Effect Adjust

Test function of each channel

With this function you can test each channel on its (correct) function.

Lamp adjustment (manual control)

With this function, you can adjust the lamp more easily. All effects will be canceled, the shutter opens and the dimmer intensity will be set to 100 %. With the individual functions, you can focus the light on a flat surface (wall) and erform the fine lamp adjustment.

Calibrate values

With this function, you can calibrate and adjust the effect wheels to their correct positions. The password of calibrate values is 050.

Users mode set

User mode

With this function, you can create user defined channel orders.

Edit User mode

With this function, you can adjust the preset user defined channel order.

Edit program

Select program

With this function, you can select the program for the Program Run.

Edit program

With this function, you can edit the internal programs.

Edit scenes

With this function, you can edit the scenes of the internal programs.

Auto scenes rec

The moving head features an integrated DMX-recorder by which you can transmit the programmed scenes from your DMX-controller to the moving head. Adjust the desired scene numbers via the encoder (from – to). When you call up the scenes at your controller, they will automatically be transmitted to the moving head.

DMX channel (24 DMX channels): DESIGN SPOT 575E

Channel 1 - PAN movement 8bit :

Channel 2 – Pan fine 16bit

Channel 3 - TILT movement 8bit :

Channel 4– Tilt fine 16bit

Channel 5 - Color Wheel :

0-13	Open / white
14-27	Color 1
28-41	Color 2
42-55	Color 3
56-69	Color 4
70-83	Color 5
84-97	Color 6
98-111	Color 7
112-127	Color 8
128-187	Forwards rainbow effect from fast to slow
188-193	No rotation
194-255	Backwards rainbow effect from slow to fast

Channel 6 - Cyan Color Wheel :

0-255	Cyan (0-white, 255-100% Cyan)

Channel 7 - Magenta Color Wheel :

0-255	Magenta (0-white, 255-100% magenta)

Channel 8 - Yellow Color Wheel :

0-255	Yellow (0-white, 255-100% Yellow)

Channel 9 - Rotating gobos, cont. rotation :

0-9	Open
10-19	Rot. gobo 1
20-29	Rot. gobo 2
30-39	Rot. gobo 3

40-49	Rot. gobo 4
50-59	Rot. gobo 5
60-69	Rot. gobo 6
70-89	Gobo 1 shake slow to fast
90-109	Gobo 2 shake slow to fast
110-129	Gobo 3 shake slow to fast
130-149	Gobo 4 shake slow to fast
150-169	Gobo 5 shake slow to fast
170-189	Gobo 6 shake slow to fast
190-255	Rot. gobo wheel cont. rotation slow to fast

Channel 10 - Rotating gobo index, rotating gobo rotation :

0-127	Gobo indexing
128-187	Forwards gobo rotation from fast to slow
188-193	No rotation
194-255	Backwards gobo rotation from slow to fast

Channel 11 - Rotating gobos, cont. rotation :

0-9	Open
10-19	Rot. gobo 1
20-29	Rot. gobo 2
30-39	Rot. gobo 3
40-49	Rot. gobo 4
50-59	Rot. gobo 5
60-69	Rot. gobo 6
70-89	Gobo 1 shake slow to fast
90-109	Gobo 2 shake slow to fast
110-129	Gobo 3 shake slow to fast
130-149	Gobo 4 shake slow to fast
150-169	Gobo 5 shake slow to fast
170-189	Gobo 6 shake slow to fast
190-255	Rot. gobo wheel cont. rotation slow to fast

Channel 12 - Rotating gobo index, rotating gobo rotation :

0-127	Gobo indexing
128-187	Forwards gobo rotation from fast to slow
188-193	No rotation
194-255	Backwards gobo rotation from slow to fast

Channel 13- 3 facet rotating prism, Prism / Gobo macros:

0-3	open
4-63	Forwards rotation from fast to slow
64-67	No rotation
68-127	Backwards rotation from slow to fast
128-135	Macro 1
136-143	Macro 2
144-151	Macro 3
152-159	Macro 4
160-167	Macro 5
168-175	Macro 6
176-183	Macro 7
184-191	Macro 8
192-199	Macro 9
200-207	Macro 10
208-215	Macro 11
216-223	Macro 12
224-231	Macro 13
232-239	Macro 14
240-247	Macro 15
248-255	Macro 16

Channel 14 – Focus:

0-255	Continuous adjustment from near to far

Channel 15 – Stepless Zoom

0-255	Zoom adjustment from small to big

Channel 16 - Shutter, strobe:

0-31	Shutter closed
32-63	No function (shutter open)
64-95	Strobe effect slow to fast
96-127	No function (shutter open)
128-159	Pulse-effect in sequences
160-191	No function (shutter open)
192-223	Random strobe effect slow to fast
224-255	No function (shutter open)

Channel 17- Dimmer (intensity):

0-255	Intensity 0 to 100%

Channel 18– Iris:

0-191	Max. diameter to Min.diameter
192-223	Pulse closing fast to slow
224-255	Pulse opening slow to fast

Channel 19 –Frost:

0-191	Frost 0~100%
192-223	Pulse opening fast to slow
224-254	Pulse closing slow to fast
255	Max. Frost

Channel 20- Fire Wheel , rotating fire wheel:

0-7	open
8-255	Forwards rotation from fast to slow

Channel 21 - Speed Of CMY :

0-255	Speed Max □>Min

Channel 22 - Colour macros - CMY and colour wheel:

0-7	OFF	128-135	Macro16
8-15	Macro1	136-143	Macro17
16-23	Macro2	144-151	Macro18
24-31	Macro3	152-159	Macro19
32-39	Macro4	160-167	Macro20
40-47	Macro5	168-175	Macro21
48-55	Macro6	176-183	Macro22
56-63	Macro7	184-191	Macro23
64-71	Macro8	192-199	Macro24
72-79	Macro9	200-207	Macro25
80-87	Macro10	208-215	Macro26
88-95	Macro11	216-223	Macro27
96-103	Macro12	224-231	Macro28
104-111	Macro13	232-239	Macro29
112-119	Macro14	240-247	Macro30
120-127	Macro15	248-255	Random CMY

Channel 23 - Speed pan/tilt movement:

0-225	max to min speed
226-235	blackout by movement
236-245	blackout by all wheel changing
246-255	no function

Channel 24– Lamp on/off, reset, internal programs:

0-19	colour change normal
20-39	colour change to any position
40-59	Lamp on
60-79	Lamp switch off
80-84	All motor reset
85-87	Scan motor reset
88-90	Colors motor reset
91-93	Gobo motor reset
94-96	Shutter & Dimmer motor reset
97-99	Other motor reset
100-119	Internal program 1 (secne1~8 of EEPROM)
120-139	Internal program 2 (secne9~16 of EEPROM)
140-159	Internal program 3 (secne17~24 of EEPROM)
160-179	Internal program 4 (secne25~32 of EEPROM)
180-199	Internal program 5 (secne33~40 of EEPROM)
200-219	Internal program 6 (secne41~48 of EEPROM)
220-239	Internal program 7 (secne49~56 of EEPROM)
240-255	Music Control (secne of Program 1)

ERROR MESSAGE

When you turn on the fixture, it will make a reset first. The display may show “XXer” while there are problems with one or more channels. “XX” stands for channel PAN- movement, TILT- movement, Cyan Color, Magenta Color, Yellow Color, Color, Rotation gobo, Gobo Rotation, Prism Rotation, Shutter, Strobe, Focus, Stepless Zoom, Iris, Fire wheel who has the testing sensor for positioning.

For example, when the display shows “Cyan color Er”, it means there is some error in channel 1. If there are some errors on channel 1, channel 3, channel 5 at the same time, you may see the error message “Pan movement Er” “Tilt movement Er”, “color Er”, flash repeated for 5 times, and then the fixture will generate a reset signal, all the stepper reset. If the fixture remain error message after performing reset more than 3 times, it will detect whether the fixture has more than 3 errors. If the fixture has more than 3 errors (including 3 errors), all the channels can not work properly; but if the fixture has less than 3 errors, only the channels which have errors can not work properly, others can work as usual.

PAN- movement Er

(PAN-yoke movement error) This message will appear after the reset of the fixture if the yoke’s magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The PAN- movement is not located in the default position after the reset.

TILT- movement Er

(TILT-head movement error) This message will appear after the reset of the fixture if the head’s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The TILT- movement is not located in the default position after the reset.

Cyan Color Er

(Cyan Color-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The Cyan Color wheel is not located in the default position after the reset.

Magenta Color Er

(Magenta Color-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The Magenta Color-wheel is not located in the default position after the reset.

Yellow Color Er

(Yellow Color-wheel error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The Yellow Color -wheel is not located in the default position after the reset.

Color Er

(Color wheel- error) This message will appear after the reset of the fixture if the yoke’s magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The color wheel is not located in the default position after the reset.

Rotation gobo Er

(Rotating gobo wheel 1- error) This message will appear after the reset of the fixture if the yoke’s magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Rotating gobo wheel 1 is not located in the default position after the reset.

Gobo Rotation Er

(Gobo Rotation wheel 1- error) This message will appear after the reset of the fixture if the yoke’s magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Gobo Rotation wheel 1 is not located in the default position after the reset.

Rotation gobo Er

(Rotating gobo wheel 2- error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Rotating gobo wheel 2 is not located in the default position after the reset.

Gobo Rotation Er
(Gobo Rotation wheel 2- error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Gobo Rotation wheel 2 is not located in the default position after the reset.

Prism Rotation Er
(Prism Rotation-wheel error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Prism Rotation -wheel is not located in the default position after the reset.

Shutter, Strobe Er
(Shutter, Strobe-wheel error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Shutter, Strobe -wheel is not located in the default position after the reset.

Focus Er
(Focus error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Focus is not located in the default position after the reset.

Stepless Zoom Er
(Stepless Zoom error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Stepless Zoom is not located in the default position after the reset.

Iris Er
(Iris error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Iris is not located in the default position after the reset.

Fire wheel Er
(Fire wheel error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Fire wheel is not located in the default position after the reset.

CLEANING AND MAINTENANCE

The following points have to be considered during the inspection:

1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
2) There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
1) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.

2) The electric power supply cables must not show any damage, material fatigue or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

CAUTION
Disconnect from mains before starting maintenance operation.

We recommend a frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents.
There are no serviceable parts inside the device except for the lamp. Please refer to the instructions under “Installation instructions”.
Should you need any spare parts, please order genuine parts from your local dealer.

TECHNICAL SPECIFICATIONS

***Power supply*:**
□98VAC,50Hz;□120VAC, 50Hz;□208VAC, 50Hz;□220VAC,50Hz;□230VAC,50Hz;□240VAC, 50Hz;
□98VAC,60Hz;□120VAC,60Hz; □208VAC, 50Hz;□220VAC,60Hz;□230VAC,60Hz;□240VAC,60Hz;
□250VAC, 50Hz;□264VAC, 50Hz;
□250VAC, 60Hz;□264VAC, 60Hz;
***Power consumption*:** max. 800W
***Lamp*:** MSR GOLD 575 SA/2 DE
***Motors*:** 19 micro motors
***Carton dimensions*:** 72.5x 46 x 57.5cm
***Net weight*:** 31 KGS
Gross weight: 37.5 KGS

Remark: errors and omissions for every information given in this manual excepted. All information is subject to change without prior notice.